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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,240	04/08/2004	Nisar Ahmed Khan	2183.03-6384US	9732
24247	7590	08/09/2007		
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			EXAMINER SKOWRONEK, KARLHEINZ R	
			ART UNIT	PAPER NUMBER
			1631	
			MAIL DATE	DELIVERY MODE
			08/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/821,240

Applicant(s)

KHAN ET AL.

Examiner

Karlheinz R. Skowronek

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 31-47 is/are pending in the application.
- 4a) Of the above claim(s) 1-26 and 31-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/9/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Status***

Claims 1-27 and 31-47 are pending.

Claims 28-30 are cancelled.

Claims 1-26 and 31-46 stand withdrawn as being directed to a non-elected invention.

Claims 27 and 47 are being examined.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 9 May 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

### ***Objections to Specification***

#### **Response to Arguments**

Applicant's arguments, see p. 11, filed 9 May 2007, with respect to objections to the specification have been fully considered and are persuasive. The objection of specification has been withdrawn.

***Claim Rejections - 35 USC § 112***

**Response to Arguments**

Applicant's arguments, see p. 11-12, filed 9 May 2007, with respect to rejection of claims 27-30 under 35 USC 112, second paragraph have been fully considered and are persuasive. The rejection of claims 27-30 has been withdrawn.

***Claim Rejections - 35 USC § 102***

**Response to Arguments**

Applicant's arguments, see p. 12, filed 9 May 2007, with respect to the rejection of claims 27-30 under 35 USC 102 have been fully considered and are persuasive. The rejection of claim 27-30 has been withdrawn.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following rejection is necessitated by amendment.

Claims 27 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (US PG PUB 2002/0147306) in view of Hammond et al (US PG PUB 2003/0212253).

The claims are directed to a method of producing a pharmaceutical compound by identifying a compound that modulates immune reaction by searching a peptide database of peptides consisting 3-9 amino acids in length, conducting a therapeutic profiling of the compound for efficacy and toxicity, formulating a pharmaceutical preparation. In some embodiments, the peptide database comprises trimers and tetramers.

Lin et al teach a method of producing a pharmaceutical in which the identity of a compound is determined which modulates glucose tolerance. It is generally accepted in the art that individuals that have diabetes have an altered tolerance to glucose levels and therefore a compound as disclosed in Lin et al to modulate or provide a therapeutic benefit for diabetes would modulate glucose tolerance. In Lin et al, compounds are identified that modulate the signaling pathways that include ephrin-PDZ interactions (p. 2, [0020]) that provide a therapeutic benefit to diseases of the immune system (p. 3, [0033]). One disclosed assay system is a search of members of a random peptide library reading on searching a peptide database (p. 15, [0158]). The identified compounds are profiled therapeutically for efficacy toxicity and in animals (p. 2, [0021]). Suitable compounds are then formulated into a pharmaceutical preparation (p. 2, [0022]). Lin et al show that peptides can be 3 to 70 amino acids in length (p. 6, [0067])

Lin et al does not show a library or database of comprising peptides consisting of three to nine amino acids in length.

Hammond et al shows peptides to modulate plasma proteins (p. 1, [0011]). The peptides of Hammond et al are isolated from searching/screening a combinatorial library of 3-mer 4-mer and 6-mers (p. 7-8, [0043-0050]). Hammond et al teach the immobilization of the combinatorial peptide library on an insoluble carrier (p. 7, [0043]). Hammond et al show the isolated peptides are also used to form pharmaceutical compositions (p. 5, [0028]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of producing a pharmaceutical composition by searching a peptide library of Lin et al with the method of identifying ligands to plasma proteins by searching a 3-mer, 4-mer and 6-mer containing combinatorial peptide library of Hammond et al because Hammond et al suggest peptide screening is well known in the art (p. 5, [0028]). The well known status of peptide screening is also supported by Lin et al (p. 14, [0149]). Thus, one of ordinary skill in the art at the time the invention was made would have had a reasonable expectation of success to identify trimer, tetramer and hexamer peptide ligands using the library of Hammond et al in the method of Lin et al for producing a pharmaceutical composition for diseases of the immune system.

**Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karlheinz R. Skowronek whose telephone number is (571) 272-9047. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm (EST).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

1 August 2007

/KRS/  
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Assistant Examiner, Art Unit 1631

  
JOHN S. BRUSCA, PH.D.  
PRIMARY EXAMINER